DOCUMENT RESUME

ED 165 838 JC 790 112

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TITLE Perspectives for Planning.
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NOTE 7p.; For a related document see ED 122 896

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Budgeting; Cost Effectiveness; *Educational Planning; Efficiency; Evaluation Criteria; Input Output Analysis; Measurement Techniques; *Organizational Effectiveness; *Postsecondary Education; *Productivity

ABSTRACT

The operations of an institution can be viewed from three perspectives: (1) the "actual operating measurement" such as income and expenditures of a cost center at a point in time; (2) the "criterion" which reflects the established policy for a time period; and (3) the "efficiency level" wherein a balance between input and output is defined. Criterion is normally established with the development of the budget which establishes the desired levels of spending and production for a specific time period. The budget can be, and is, amended as conditions require; however, with each set of amendments a new criterion is established. The different perspectives are not always discrete nor is the hierarchical order the same for different organizational units or over time. In most systems, there is a strong tendency to mask the divergence of the perspectives over a planning time cycle. Growth, on the other hand, is largely controlled by the financial ability to absorb growth unless there is a funding formula encouraging growth. Production is too often considered at the actual level rather than considering the actual production in relation to the criterion or efficiency level. The planning cycle will start from a base in actual information. Qualitative outcome objectives are then produced and measures of effectiveness must be developed for them; the real danger for the monitoring processes is the paucity of effectiveness measures in instructional and service areas. Without them it is easy to slip into a mode of monitoring on efficiency alone. (Author/MB)

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# PERSPECTIVES FOR PLANNING

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PERSPECTIVES FOR PLANNING

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The operations of an institution can be viewed from three different perspectives. All too often there is a failure to either understand the unique nature of these different perspectives or to utilize the different perspectives properly in management or planning. This paper is written to highlight the perspectives and to illustrate their use in the management and planning process.

The first perspective is the "actual operating measurement". The income and expenditures of a cost center at a point in time would be an actual operating measurement. So would be grades, graduates, and number of students. This actual operating measurement will either reflect the condition of some function at a point in time or over time. The amount of money left in a budget account at the end of the month reflects the condition at a point in time, whereas, the money spent from that account reflects a condition over time.

The second perspective is the "criterion". This perspective reflects the policy established for a time period. In some cases the criterion takes on the form of an approved projection. Examples include the budget of the institution, the projected enrollment, the planning documents and other statements of outcome established by the policy of the institution.

The third and last perspective is the "efficiency level". The efficiency level is established at a point where there is a balance between input and output which is well defined. This perspective is represented by the cost-outcome point where there is a balance between the cost and income of the program. In business this would be the point at which profit replaces loss. If agreement could be reached on terms and quantity, such points could be established for program input and output, input and attrition and other non-financial functions. This level could be considered as singularly necessary when used with any unit of organization in that it states levels of operation for the unit to stand by itself.

These perspectives are most apparent in the fiscal and production functions of the organization. However, the perspectives exist in other functions such as quality and goals. In these latter functions, the problem is not with the concept of the perspective, but with the lack of well defined and accepted measure of performance. For this reason, this paper chooses to illustrate the concepts of actual operating measurement, criterion and efficiency level with examples from fiscal and production activities where measures are well defined.

For the production and fiscal functions, the criterion is normally established with the development of the budget which establishes the desired levels of spending and production for a specific time period.

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The budget becomes the required criterion for operation. The budget can be, and is, amended as conditions require. However, with each set of amendments a new criterion is established.

A problem often encountered when an effort is made to compare the actual measurement with the criterion evolves from the time frame of the two perspectives. In the area of budget allocations and actual expenditures the problem can become acute. The budget or criterion document covers a full year whereas the actual expenditures taken at any point within the year reflect a shorter time period. The shorter the time period the greater the problem, as the actual expenditures must be projected to a full year in order to make a comparison with the budget allocation. This projection can be a difficult and controversial action because of the uneven distribution of certain expenditures over time. If a budget showed a criterion of $7,000 for equipment expenditures and the real expenditures are $6,000 for one quarter, what does this say? A straightforward time projection would estimate yearly equipment cost to be $24,000 ($6,000 x 4), on the other hand the cost center could have estimated their equipment cost to be $7,000 and were able to purchase everything they required for only $6,000 and do not intend to spend the remaining $1,000 during the last three quarters of the year. The same problem exists with comparisons of other expenditures and with comparisons of actual production and production criteria in those areas which have uneven enrollment patterns. Projections of such fixed cost as salary for contractual employees do not present such a problem. However, in many areas the true comparison can be made after the fact at the end of the budget cycle.

Table One gives an example of an analysis for Term One using the three perspectives to assist planning. The efficiency level is determined by the method developed in "The Cost Income Component of Program Evaluation".

Table I
Planning Analysis
Term I

| Factor | Criteria | Actual | (2) Efficiency |
|---|---|---|---|
| Production | | | |
| SSH | 7,500 | 7,300 | 7,650 |
| % Annual | 42% | 41 | |
| Personnel Cost | | | |
| Total | 150,375 | 144,540 | 137,927 |
| Per SSH | 20.05 | 19.80 | 19.10 |
| Instructional | | | |
| FTE Annulized | 18.04 | 18.17 | 18.03 |
| Productivity | | | |
| Ratio Annulized | 990 | 980 | 1010 |

The different perspectives are not always discreet nor is the hierarchial order the same for different organizational units or overtime. The perspectives are forced into a position of relative sameness at the beginning of any planning time period such as the beginning of a fiscal or budget year. At this time the operational measurement and the criterion are, by definition, one and the same. Usually every effort is made to bring these as much in line with the perceived efficiency level as possible. In fact, in order to have a balanced budget which does not use up reserves or fund balances the organizational structure in total must meet the efficiency level. The problem lies in determining the degree and distribution or imbalance in the efficiency level allowed for the individual units of the structure. The budget for an institution or cost center can rarely be built on the premise that every cost center or unit will be able to operate at the efficiency level. Developing programs require more money than established programs. Individual courses or offerings must be given at below the efficiency level at times in order to maintain the integrity of a program. Calculus III for a few students who are transferring to engineering school is an example. Funding methods often create problems in allocation of income funds to centers. The percent of each student fee dollar that should be assigned to the President's Office, is just one such problem. These imbalances must be accepted and a total efficiency level established by finding ways for some units to operate well above the efficiency level.

An ex post facto examination of the operations over a planning time period will usually show the greatest divergence of the three perspectives. When actual production and cost are compared to the criteria production on a budget the results will often show marked differences. When the actual production and cost are compared to the efficiency levels other differences can occur. An examination of total real production and planned production and change in reserves or fund balances gives a quick indication of the relative state of the three perspectives at the end of a planning period.

In most systems, there is a strong tendency to mask the divergence of the perspectives over a planning time cycle. Production becomes the product of the interaction of many factors which emerge only after the initial plan has been made. Changes in the exterior environment such as economic conditions, governmental actions, and social acceptance cause enrollments to fluctuate and sometimes change anticipated income from other sources. The internal forces of finance and established resources tend to control the degree of fluctuation allowed within any time period.

Growth is largely controlled by the financial ability to absorb growth unless there is a funding formula which will encourage and finance growth. Greatest growth can occur where the growth is channeled into the marginal cost categories of expanding existing programs. If growth is channeled into new programs, the cost can well force adjustments in the production of existing programs. These adjustments, artificially created by the need to re-allocate finances and resources, can lead to confusion as to the true state of health of the controlled program and consternation as to which route is better for institution and students.

The ability to accomodate a production loss will often vary relative to the individual units within the organization. The individual degree of flexibility depends on the proportional amount of committed resources to total resources. This is especially true of staff. The greater the ratio of committed contract salary to total salary monies, the less the ability to accomodate a decrease in production. Because the individual units have varying degrees of flexibility, losses in enrollment can also cause an artificial production pattern as there is a tendency to force production into the areas of least flexibility. The long range results of this temporary expediency is in fact an accumulated pressure to compound the problem. The pressure caused by forcing production into low flexibility components will in time cause an even greater loss in production in those units as the artificially supported production must eventually seek the normal pattern. If a program would have real demand under depressed enrollment of 4000 units each term and the enrollment was held artificially at 4500 for two terms, the program must face the real demand of only 3000 units per term at some time. If proper adjustments are not made in the program by that time, the artificial support would cause a one term problem three times as large as the original problem (500 excess enrollment versus 1500 excess enrollment).

As a result of the complications mentioned above, production is too often considered at the actual level rather than considering the actual production in its relationship to the criterion or efficiency level. Efficiency levels also need to be studied over time as these levels can change with changes in production, funding and expenditure. Some effort is made to compare real production between time periods. Unfortunately little effort is devoted to comparisons of criterion and actual production. However, in the context of the planning function, there is always a transition from the real to the projected or planned production. Questions need to be asked about the variations in past criterion and actual production and the problems that large variations may have created. Also, there must be a clear understanding of the point at which criterion production replaces actual production in the planning data.

The divergence in the financial levels are masked by amendments to the budget. In fact, for public institutions at least, the requirements of law and accounting practices require budgets to be amended to a point which will cover the actual cost. This has the effect of saying the criteria are now the same as the actual. Therefore, at the end of each budget, as at the beginning, the actual and the criteria merge. From the planning context, however, an examination should be made of the changes from the original criterion. What are the causes of these changes? Can the next set of criteria adjust for these changes? Do the causes have impact for priority planning alternates? In Florida, what are the effects on a college of State funding being based on actual end of year cost averaged over the total system? These are but a few of the questions which could have impact on planning.

The planning cycle will start from a base in actual information. Objectives which take into account the qualitative outcome goals of the institution are then produced. These objectives, which now become the criteria, are organized, placed in priority order, and timelined to comply with the overtime efficiency requirement of solvency.

Lastly, measures of effectiveness must be developed for the objectives and included in the final plan in order to monitor the progress of the plan or to adjust the plan as necessary.

The real danger of the monitoring processes lies in the paucity of effectiveness measures in the instructional and services areas of the institution. Too often the present measures are closely related to efficiency measures. An example would be in number of program completers. This number too often is a simple function of the number of enrollees and does not measure the real effectiveness of the program in meeting the goals of the student or the program nor does the number consider the quality of the raw material of the program or the counseling and admission function. An examination of large fluctuations in completions may shed light on progress or problems as programs are monitored. Here again, this does not measure true effectiveness. Without well developed effectiveness measures it is very easy to slip into a mode of monitoring plans and performance on efficiency alone. This does grave injustice to the concept of education as we now perceive it. However, we cannot ignore efficiency and survive. We should choose, adjust and change our actions on effectiveness measures and use efficiency as the overall control.

Lawrence and Service in Quantitative Approaches to Higher Education (p.78) clearly sound the warning. "If those within the higher education community, particularly front-line researchers and academics do not assume the leadership role, there is great likelihood that the void will be filled by individuals less understanding and supportive of education's real mission. The possibilities for distortion and misapplication of the quantitative techniques inherent in such an eventuality are real". One has only to examine the slowly creeping loss of autonomy within the Florida Community College System as more data of the quantitative nature is required by the Legislature to understand the impact of that statement. Yet the System, in its individual units or in the whole, is not moving to supplement the quantitative efficiency data with quality effectiveness data. Lawrence and Service (p. 79) put it this way. "A perfectly efficient educational enterprise that fails to fill the roles expected and needed by society could only be termed a failure if not a tragedy". We must determine these roles, agree upon them, communicate them effectively to the public and be willing to find ways to demonstrate our ability to fill these roles if we are to expect public support, both moral and monetary, and expect the right to control our destiny at the college level.

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(Also available as ERIC Document No. ED 122 896)